DUGWAY PERMIT

MODULE VII

ATTACHMENT 1

GENERAL FACILTIY DESCRIPTION

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS

ATEC	Army Test and Evaluation Command
DTC	Army Developmental Test Command
Dugway	Dugway Proving Ground
HWMU	Hazardous Waste Management Unit
SWMU	Solid Waste Management Unit

1.0 INTRODUCTION

Dugway Proving Ground (Dugway) is a research, test and training ground. The facility was established in 1942 by the Army Chemical Warfare Service for the development and testing of mortars, incendiary, flame-throwing weapons, and chemical and biological warfare agents. At present, it is an active unit of the Army Developmental Test Command (DTC), a subcommand of Army Test and Evaluation Command (ATEC).

1.1 Facility Description

Dugway, which covers 1,315 square miles, is located in the Great Salt Lake Desert approximately 75 miles southwest of Salt Lake City, Utah, as shown in Figure 1-1. The installation can be divided into three main activity areas: 1) English Village and Fries Park, which includes the administration, housing and maintenance activities: 2) Avery, Carr and Ditto areas, which include chemical warfare agent laboratories and testing facilities; and 3) Baker Laboratory, which is the biological warfare agent test facility. Large bombing ranges located mostly west and south of the Ditto and Carr area and north of Baker are used for testing and training. Figure 1-2 shows the locations of each main activity area.

The research, test and training operations and facility functions at Dugway generated various waste streams. Operations involving chemical warfare agent (agent) testing included decontamination of materials and substances that were exposed to agents such as the nerve agents Sarin (GB), and VX and blister agents Mustard (H) and Lewisite (L). Discarded agent, decontamination solution and decontaminated solids were disposed at many of the HWMUs and SWMUs. Currently, testing of chemical and biological warfare agents is limited to laboratory study.

Other hazardous waste streams, past and present, include battery operations, building maintenance wastes, photo processing, open burning and detonation of waste explosives and vehicle and equipment maintenance waste. A variety of household, office building and industrial type solid waste also is generated. Before about 1990, much of the solid and hazardous waste that was generated was disposed in the landfills, surface impoundments, tanks and waste piles. Also, pesticides and herbicides may be present from historic crop warfare testing activities.

1.2 Geology

Dugway is located in the Basin and Range region of the western United States. This region is generally characterized by north-south trending mountain ranges separated by sediment filled basins or valleys. The prominent inselbergs and

nearby mountain ranges are composed of Precambrian intrusive and metamorphic rocks, Paleozoic limestone, sandstone, orthoquartzite and Tertiary extrusives.

Large alluvial fans comprised of coarse-grained materials are common where streams exit the mountain fronts. Dry lakebeds and shallow, sandy stream channels are common in the valleys. The basins are filled with Plio-Pleistocene alluvial, aeolian, and lacustrine sediments.

1.3. General Hydrologic Setting

Groundwater flows in two main valleys or basins bounded by bedrock, Dugway Valley and Government Creek Valley. Groundwater in both the Government Creek and Dugway Valley areas flow toward the Great Salt Lake Basin. A groundwater divide separates these areas and English Village is part of the Skull Valley aquifer system.

Surface water at Dugway drains predominately to the northwest toward the Great Salt Lake desert. No perennial streams are located at Dugway; however, ephemeral and intermittent streams are present which drains onto the basin floor and infiltrate or quickly evaporate. Government Creek, which is intermittent, originates near Simpson Mountain, and is the main drainage at Dugway.

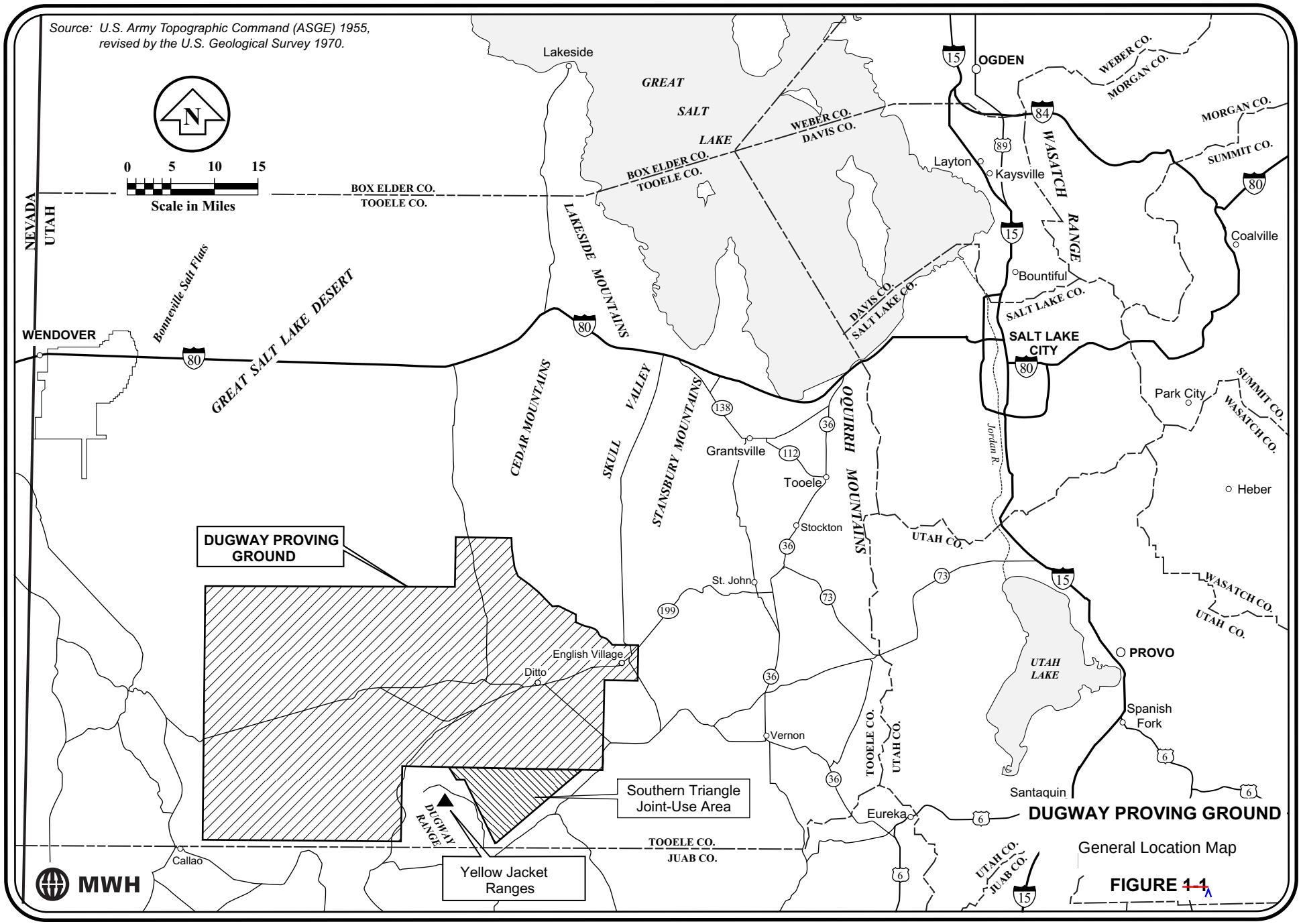
DUGWAY PERMIT

MODULE VII

ATTACHMENT 1

General Facility Description

FIGURES



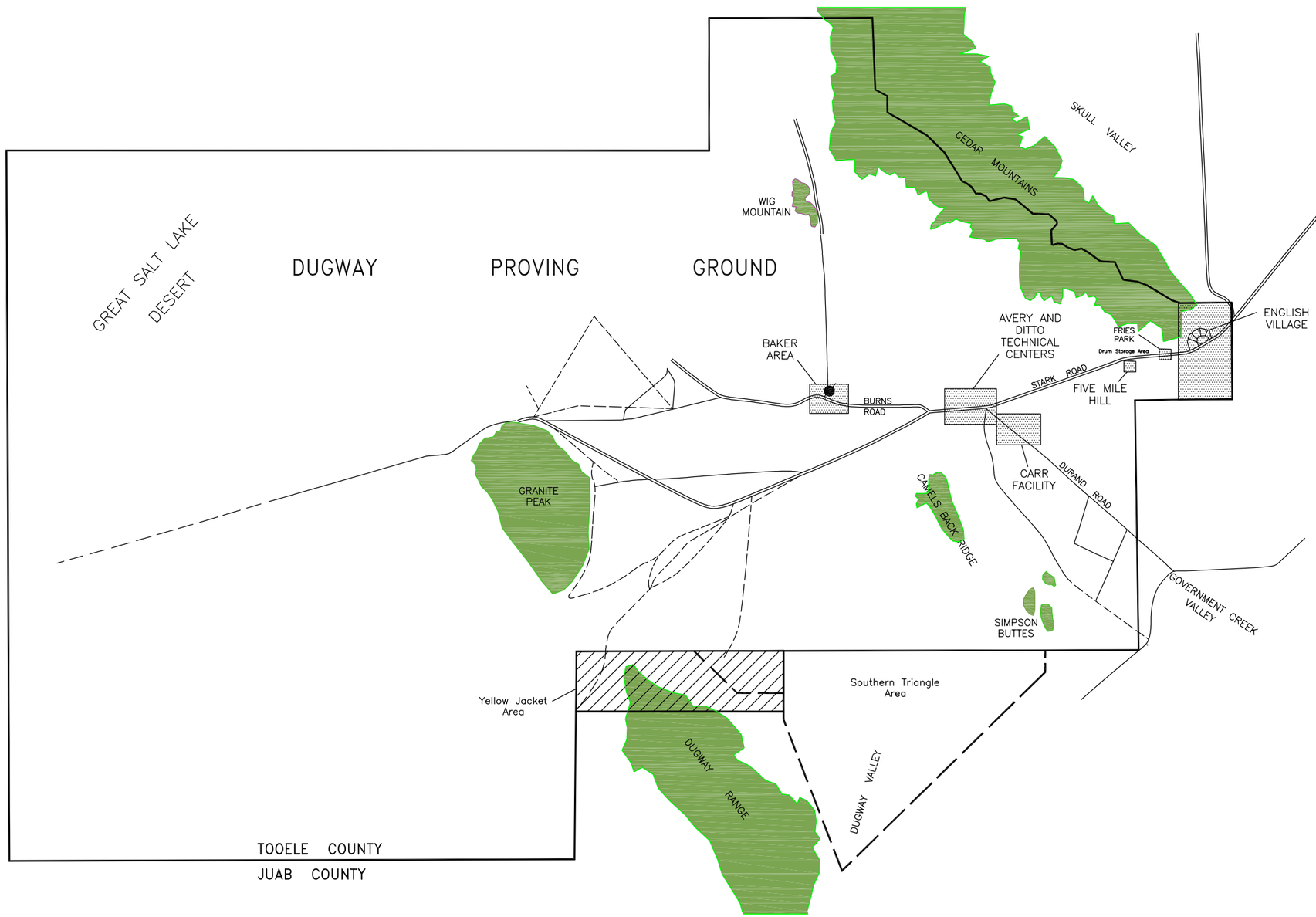
MWH

DUGWAY PROVING GROUND

General Location Map

FIGURE 1-1

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	---	CONC	R. LANGSTON 8/21/2003	A. Ng 8/21/2003		870502-B501



LEGEND

- Trail or unpaved road
- Secondary road
- Primary road
- Installation boundary

N

SCALE IN MILES

4 0 4

IT CORPORATION

U.S. ARMY
CORPS OF ENGINEERS
SACRAMENTO DISTRICT

FIGURE 1-2

DUGWAY PROVING GROUND
Main Activity Area Map

DUGWAY PROVING GROUND
DUGWAY, UTAH